

**Steel wire for mechanical springs - Part 3: Stainless
spring steel wire**

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NATIONAL FOREWORD

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English Version

Steel wire for mechanical springs - Part 3: Stainless spring steel wire

Fils en acier pour ressorts mécaniques - Partie 3: Fils en acier inoxydable

Stahldraht für Federn - Teil 3: Nichtrostender Federstahldraht

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Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Information to be supplied by the purchaser	4
4 Requirements	5
4.1 Manufacturing process	5
4.2 Form of delivery	5
4.3 Surface finish	5
4.4 Chemical composition	5
4.5 Mechanical properties	6
4.6 Technological properties	8
4.7 Supply conditions of wire on coils/reels and spools	8
4.8 Surface quality	10
4.9 Inner soundness	10
4.10 Dimensions and dimensional tolerances	10
5 Testing and inspection.....	12
5.1 Inspection and inspection documents	12
5.2 Extent of testing for specific testing.....	12
5.3 Sampling	14
5.4 Test methods.....	14
5.5 Retests	15
6 Marking and packaging	15
Annex A (informative) Additional information.....	16
A.1 Indications for classification of steel grades.....	16
A.2 Alteration of tensile strength by heat treatment.....	17
A.3 Physical properties.....	17
A.4 Magnetic properties.....	17
A.5 Guidelines for processing and heat treatment.....	17
Annex B (informative) Cross reference of steel grade designations.....	21
Bibliography	22

Foreword

This document (EN 10270-3:2011) has been prepared by Technical Committee ECISS/TC 106 “Wire rod and wires”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10270-3:2001.

This European Standard for steel wire for mechanical springs is composed of the following parts:

- *Part 1: Patented cold drawn unalloyed spring steel wire;*
- *Part 2: Oil hardened and tempered spring steel wire;*
- *Part 3: Stainless spring steel wire.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

1.1 This European Standard applies to the grades of stainless steels listed in Table 1, which are usually used in the cold drawn condition in the form of wire of circular cross-section up to 10,00 mm in diameter, for the production of springs and spring parts that are exposed to corrosive effects and sometimes to slightly increased temperatures (see A.1).

1.2 In addition to the steels listed in Table 1 certain of the steel grades covered by EN 10088-3 e.g. 1.4571, 1.4539, 1.4028 are also used for springs, although to much lesser extent. In these cases the mechanical properties (tensile strength, etc.) should be agreed between purchaser and supplier. Similarly, diameters between 10,00 mm and 15,00 mm may be ordered according to this standard; in this case the parties should agree upon the required mechanical characteristics.

1.3 In addition to this European Standard the general technical delivery requirements of EN 10021 are applicable.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10021, *General technical delivery conditions for steel products*

EN 10027-1:2005, *Designation systems for steels — Part 1: Steel names*

EN 10027-2:1992, *Designation systems for steels — Part 2: Numerical system*

EN 10088-3, *Stainless steels — Part 3: Technical delivery conditions for semi-finished products, bars, rods and sections for general purposes*

EN 10204:2004, *Metallic products — Types of inspection documents*

EN 10218-1, *Steel wire and wire products — General — Part 1: Test methods*

EN 10218-2, *Steel wire and wire products — General — Part 2: Wire dimensions and tolerances*

CEN/TR 10261, *Iron and steel — Review of available methods of chemical analysis*

EN ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997)*

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1:2009)*

EN ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition (ISO 14284:1996)*

3 Information to be supplied by the purchaser

The purchaser shall clearly state in his enquiry or order the product and following information:

- a) the desired quantity;